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October 7, 2002

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

EX PARTE - Via Messenger

Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
The Portals  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

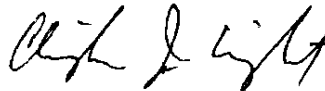
Re: CC Docket Nos. 01-338, 96-98, 98-147

Dear Ms. Dortch:

On October 4, Tom Koutsky and George Ford of Z-Tel and I met with Bill Maher, Jeff Carlisle and Rob Tanner of the Wireline Competition Bureau. We distributed and discussed the attached documents at these meetings.

In accordance with FCC rules, a copy of this letter is being filed in the above-captioned dockets.

Sincerely,



Christopher J. Wright  
Counsel to Z-Tel Communications, Inc.



# Unbundled Local Switching and UNE-P

Thomas M. Koutsky

George S. Ford

Christopher J. Wright

October 4, 2002

CC Docket # 01-338, 96-98, 98-247



# Today's Agenda

- What Z-Tel does with UNE-P
- Empirical research on unbundling
- Legal hurdles to any ULS restriction
- Impairment Standard
- Forging role for state commissions



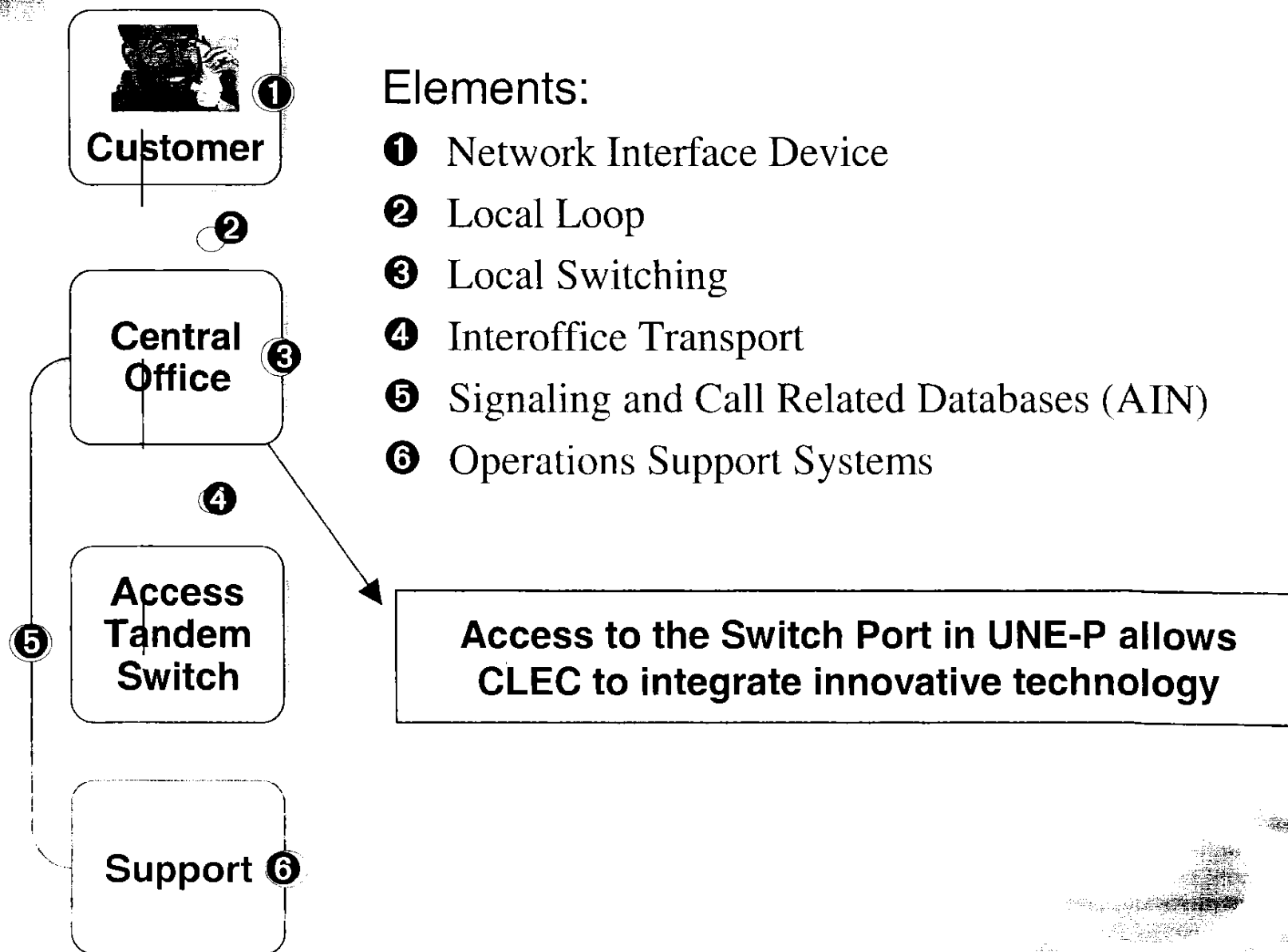
## **Z-Tel's Innovative Uses of UNE-P**





# Elements of UNE-P

Unlike resale, we control all elements.





# We're What the Act Was About

**Innovative and new local services to  
*mass-market residential and small  
business customers***

For example:

- Remote access to calling & messaging via phone or Web
- Internet-accessible voicemail
- Multiple-number Call Forwarding
- Dial-by-voice functionality
- Web conferencing



# What the Bells Don't Offer...

- [1] Place Call
- [2] Message Center — Mom
- [3] Account Options — Dad
- [4] PVA(Personal Voice Assistant) — Kids
- [5] Conference Calling
- [6] Unified Messaging Coming Soon!
- [7] Tasks & Calendaring Coming Soon!
- [8] Content Coming Soon!
- [9] Yellow Pages Coming Soon!
- [0] Customer Care



# Intelligent Dial Tone

Introducing Z-Line Personal Voice Assistant (PVA)



Active Number  
MyLine Name  
MyLine Account

Introducing Z-LinePVA, your Personal Voice Assistant

- Allow incoming calls to be answered
- Send text messages and emails
- Download and play music
- FREE 30 days of activation and use
- FREE for 30 days with no other
- No other charges

Just tear off the card to get started!

Get **30 days** of speech-activated long distance, and more, **FREE!**

Visit [www.ztel.com/pva](http://www.ztel.com/pva) today.

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# 1<sup>st</sup> Nationwide Local Phone Company



Mass-market consumers in red can get Z-Tel service today.



# **Empirical Research on Effects of Unbundling**



# UNE-P: The Future

- In considering, “What happens after UNE-P?”, FCC should not adopt paradigm that “locks in” particular model of competitive entry
- UNE-Loop entrants are *just* as dependent upon ILEC as UNE-P entrants
  - They cannot serve customers without loops and collocation
  - UNE-Loop entrants will have invested millions of dollars into a network architecture that mirrors the Bells – same COs, same loops
  - Potential for UNE-Loop “lock in” – once millions invested in ILEC network architecture, will that entrant *ever* migrate away from ILEC any further?
- UNE-P entrants free to migrate customers *totally* away from ILEC network once those networks are built
  - Since no CapEx associated with ILEC architecture, **UNE-P customer base is mobile**
  - If FCC wants new networks, facilitating open bidding for mass-market customer bases helps – locking CLEC customer bases into perpetual ILEC loop dependence does not
  - **These alternative networks will not be built without “customers first” – UNE-P provides that customer base**
  - See Beard, Ford and Spiwak, “Why AdCo?”, 54 Fed Comms. L. J. 421 (2002).



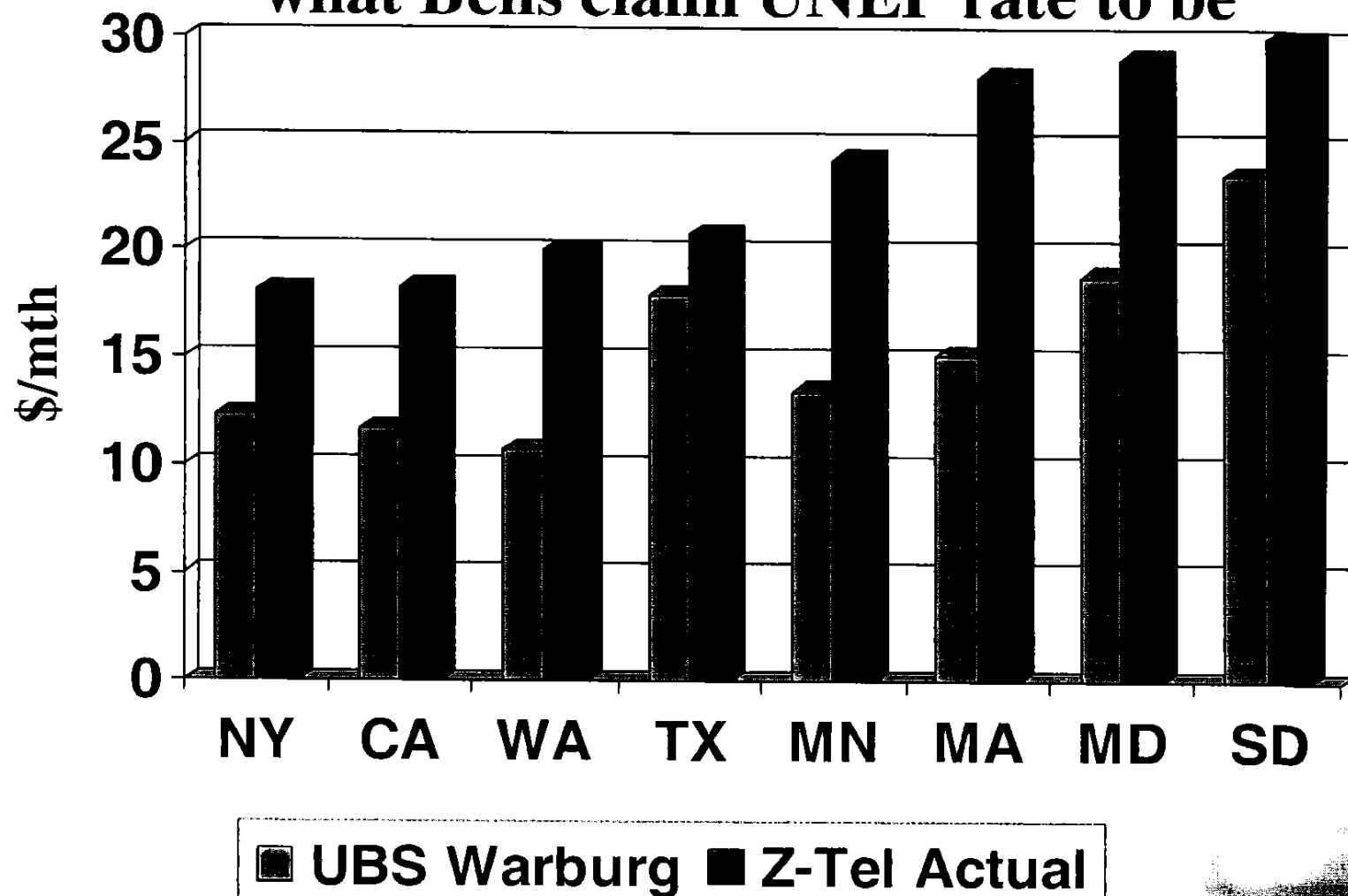
# Research Supports Pro-Competitive, Pro-Investment Effects of UNE-P

- *Residential/Small Business Competitive Entry greater where UNE Platform available without restriction*
  - Z-Tel Policy Paper No. 3
  - Data: FCC Local Competition Reports
- *UNE-P promotes facilities investment*
  - Z-Tel Policy Paper No. 4
  - Data: looks at switch deployment over time, using FCC Local Competition data, LERG
- *Bells make money selling UNE-P to Z-Tel*
  - September 23 and 30, 2002 Z-Tel ex parte letters to Chairman Powell
  - SBC CFO confirms that competition in Texas – *where UNE-P has been and is now available without restriction* – is “workable” and “doable”
  - Wall Street reports substantially misstate actual costs of UNE-P



## Real UNE-P Prices

**Z-Tel actual payments >25% more than what Bells claim UNEP rate to be**





# Bells Crying Wolf?

- BOCs average over 50% EBITDA margin selling UNEP to Z-Tel
- Margins **more** than sufficient to cover depreciation and “investment”
  - Z-Tel UNEP payments compared to actual Bell ARMIS operating costs
  - Z-Tel Sept. 23, 2002 letter to Chairman Powell and NARUC President Nugent
  - Z-Tel Sept. 30, 2002 letter to Chairman Powell and NARUC President Nugent
  - Phoenix Center Policy Paper No. 16
- Bells dramatically overstate impact of UNEP; understate UNE-P revenue by over 25% -- or \$7/month per line.
- What happens to Bell profits if UNE-P lines immediately move to facilities? *Bells lose another \$3B per year.*

**Debate is *not* about “what type of competition to have” but about returning lost customers to Bells and increasing prices**



## More Research...

- ***Lower UNE prices do not “discourage” facilities-based entry***

- Beard, Ford and Koutsky, *Facilities-Based Entry into Local Telecommunications* (2002) (attached to Z-Tel Comments)
  - Study also supports findings of Policy Paper No. 4
  - Data: FCC Local Competition data, LERG, state UNE prices
  - **Study entirely un rebutted the record**
- Pelkovits and Ford, *Unbundling and Facilities-Based Entry by CLECs* (2002)
  - Data: ARMIS, FCC Form 477 data (latest available data)

- ***Unbundling and “facilities-based” entry are not substitutes***

- Beard and Ford, *Make or Buy? Unbundled Elements as Substitutes for Competitive Facilities* (2002)
- Data: UNE-P Fact Report, FCC Form 477 data and UNE pricing data
- Estimated demand curves for unbundled loops purchased with switching (UNE-P) and without switching (UNE-L)
- Comparing elasticity of these curves indicates whether CLECs view UNE-P and UNE-L as substitute forms of entry, or whether they are different forms of entry to serve different markets
- Results: **UNE-P and UNE-L are not substitutes**
- Findings support Z-Tel argument that impairment not solved by availability of UNE-L – in fact, forced migration to UNE-L risks unserving the market UNE-P currently supports



# Legal Hurdles

- Core elements of UNE-P (loops, switching and transport) specifically listed in section 271 checklist
  - Legislative history: checklist contains “at a minimum” what should be unbundled under section 251
  - Consistent with purpose of the Act to provide “parity” of “equal access” between IXC and ILEC into one another’s markets
- Restricting any section 271 element would require section 10 forbearance (Verizon petition) – which is sharply limited
- Application of forbearance by FCC as requested by Verizon exceeds constitutional bounds of FCC’s authority
- Additional state unbundling or access requirements specifically preserved in section 251(d)(3).
  - States adopted core elements of UNE-P under state law before and after Act passed.
  - There is no legal “inconsistency” between an FCC decision not to order unbundling nationally and a state order ordering unbundling locally





# Utilizing State commissions can help

*USTA Issue: fact-based, granular analysis that does not provide unbundling of “unvarying scope”*

- Rather than illegally preempt states, enlist their assistance
- States can **help** FCC write rules that pass legal muster
- Example: States do fact-finding with regard to whether impairments continue to exist – with particular focus upon whether reduction in output would occur in their states
  - Discovery
  - Cross-examination
  - States that have done this to date have found the UNEP access is warranted to serve the mass market (see Texas) – **current evidence in Triennial Review docket is insufficient to rebut those findings**
- Example: States examine impact of unbundling and UNE-P on retail price regimes (as in NY and IL today)
- FCC can utilize these state findings to determine future federal unbundling rules or applications of those rules

# Legal Hurdles in Restricting ULS/UNE-P





## Legal Hurdles

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# Impairment Standard





# Proposed Impairment Framework

1. Begin with market definition – the “service” requesting carrier “seeks to provide”
  - E.g.: the local telecommunications mass-market (Z-Tel Comments Attachment A, or >139MM lines)
  - Consistent with FCC precedent in prior Orders
  - Provides “granularity” *USTA* requests
2. What are the demand-side requirements of “serving” that “market”?
3. What are supply-side requirements of “serving” that “market”?
4. Without unbundled access, can entrant serve as many customers within 2 years as with unbundled access?



## Ford Reply Decl. Section III

*Impairment exists when a lack of access to an ILEC network element reduces a CLEC's output by a small, but significant, and non-transitory amount*

- Complies with *USTA* -- a fact-based analysis
- Requires FCC to consider whether alternatives to element...
  - Are available from other sources in sufficient quantity and quality
  - Can be utilized by entrant in seamless manner
  - Can be implemented without adversely affecting customer service *at service level demanded by consumers for that service*
  - Can be implemented without adversely affecting competitive output
- Flexible enough to consider prices, the “profitability” of particular entry strategies, the “difficulty” of self-provisioning
- “Significant and non-transitory” are objective “limiting principles” grounded in antitrust law



**But under any reasonable impairment standard, Z-Tel is impaired to serve the Mass Market without ULS/UNE-P**





# The “Analog Mass Market”

1. In BOC Merger Orders, FCC has identified “mass market” for local services that includes residential and small businesses
2. Demand-Side Characteristics of the Mass Market
  - Low revenue per month (\$40-80/line)
  - Highly reliable service (turn up service quickly, repairs <24 hrs, etc.)
  - Regulatory requirements (lifeline, installation/disconnection service requirements)
  - Diffuse consumer base
  - No long-term contracts/month-to-month service
  - High churn (5%-10%/mth)
3. To profitably serve Mass Market, carriers must...
  - Keep costs of customer acquisition low
  - Have reliable, electronic method of service provision
  - Be able to service churn profitably
  - Sell through mass market advertising techniques (ubiquitous coverage with consistent product)



# Essentially No UNE-L Competition in Mass Market

- The BOCs' own "UNE-Fact Report" suggests that CLECs -- *i.e.*, putting aside cable franchises and small ILECs -- currently serve at most 1/10 of 1% of the mass market via UNE-L.
- Of the nine "CLECs" in "Figure 4" of the BOCs's Report that supposedly serve 25,000 or more residential lines, most are either cable overbuilders or ILECs.
- The Act does not require a competitor to buy a cable company or an ILEC in order to compete.
- Moreover, nearly all of the "Figure 4" companies either never sought to serve the mass market or have abandoned plans to do so
- Without proof of actual market success, claims that CLECs simply can "transition" to UNE-Loop to serve Mass Market ring hollow



## Mechanized Provisioning: Essential to Providing Mass Market Services

- Over 139MM analog dialtone lines on Bell/GTE networks – supporting competitive entry requires large quantities
- ILECs serve this market in largely automated manner – they do not do a hot cut each time an analog dialtone customer adds a line or turns up service
- With low revenue/mth, regulatory service quality requirements, and high churn – CLECs *must* be able to have similar automated access to serve these customers profitably
- Project hot cuts do not and cannot solve this fundamental disparity – because still relies on manual provisioning for *all* CLEC lines while ILEC keeps mechanized access

**Loop port combination of UNE-P is today the *only* access method that provides mass market entrants like Z-Tel automated, nondiscriminatory provisioning**



# The Hot Cut Bottleneck

- No wholesale market of sufficient capacity exists anywhere – let alone with sufficient capacity
- “Hot-cut” capacity limits self-provisioning/UNE-L entry
  - Example: 5% churn per month
  - If ILEC can provide only 15,000 hot cuts per month in a state...  
**maximum Mass Market Penetration for that CLEC is 300,000 lines**
  - *In NY, that would cap a CLEC's entry at 2.3% of the market*
  - Project hot cuts not adequate to serve mass market, as manual provisioning and mass market customers not sign term contracts.
  - “Transition” to UNE-L would require CLEC to enter two businesses simultaneously *and* double-pay for switching while conversion happened
- Mechanized Access through UNE-P *can* support such volumes
  - NY: 250,000 UNE-P conversions in December 1999
  - GA: BellSouth converted 1% of its lines via UNE-P in Summer 2001
  - Over 9MM UNE-P lines in service nationwide today



## Provisioning Cost Barrier

- UNE-L conversions are expensive and manual
  - Manual Provisioning Process; backward-looking multi-step process
  - Verizon and NYPSC: each hot cut costs over \$180!
  - FCC cannot assume that the hot cut rate is lower – nor can it subsidize below-cost hot cuts
- Even if manual hot cuts were available in unlimited quantities, still place material limitation on quality of CLEC product
  - CLEC pay for manual provisioning of every line = cannot compete with Bells who have mechanized access
  - Manual error: to support mass market entry, huge volumes would be required
  - Even an optimistic success rate would still mean putting out of service hundreds of thousands of existing UNE-P customer lines (450,000 if 95% “success”)
- Transport costs and inefficiencies add to UNE-L costs



## Network Impediments to Mass Market Entry

- Z-Tel retail customer densities not sufficient to warrant collocation or transport investment
  - Z-Tel has UNE-P lines in 4207 ILEC central offices
  - In 87% of those COs, Z-Tel has less than 50 lines
  - In 94% of those COs, Z-Tel has less than 100 lines
- Collocation is expensive; ILECs fight efficient arrangements
- ILECs possess switch/transport network density economies because they were bequeathed monopoly by the state
- Even with interoffice density, CLECs cannot match efficiencies in ILEC switch/transport network with only one switch
  - Example: CLEC must pay for interoffice transport of a call **even if** that call originates and terminates at same end office
  - Bells do not incur that cost with switches in each CO



**For More Information...**

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**The Commission Should Continue to Require Unbundling of Local Switching  
and Other Elements Needed to Serve the Mass Market**

- I. Z-Tel's ability to serve the mass market would be "impaired" without access to the UNE platform within any reasonable meaning of that term in section 251(d)(2)(B).

A. **Impairment Framework:**

- Section 251(d)(2)(B) focuses the Commission's attention on whether the "failure to provide access" to a network element would "**impair the ability of the [requesting] carrier . . . to provide the services it seeks to offer.**"
- Section 251(d)(2)(B) thus indicates that the impairment analysis should be a granular, service-specific inquiry into whether failure to provide the element would **reduce CLEC output.**
  - The alternative impairment framework proposed by BOCs is inconsistent with the Act because: (1) it rewrites the statute to ignore its express focus on the ability of the requesting carrier to provide the "services it seeks to offer"; and (2) it rewrites the statute to replace "impair" with "essential." Congress chose "impair," which clearly requires a far more limited showing of reduced output than would "essential."
- Focusing on intermodal competition, as urged by the BOCs, would be flatly inconsistent with the Act's emphasis on whether the **requesting carrier** would be impaired. Congress did not require new entrants to buy a cable operator as a condition of entry.
- **But whether Z-Tel would be "impaired" without access to the UNE platform does not turn on what impairment framework is adopted.** As set forth below, under any reasonable meaning of the term "impair," the record here mandates a finding of impairment absent access to the UNE platform.

B. **Z-Tel Has Demonstrated Impairment:**

- *The Mass Market is Unique:* The **mass market** to which Z-Tel seeks to offer services has distinctive characteristics that currently make it nearly impossible to serve that market without unbundled switching and the other elements of the UNE platform. These characteristics include: high churn; low incremental revenue per account; need for headache-free installation and prompt customer service; and unwillingness to enter annual contracts.
- *Hot Cut Costs are Prohibitive in the Mass Market:* The primary costs of self-provisioning switching are not for the switch itself, but for start-up, collocation, maintenance and, most importantly, hot cut costs. Z-Tel's analysis of the New



York market indicated that **even if the switch itself, collocation, and maintenance were free**, it would not be profitable to deploy a switch to serve mass-market customers in New York at a “true” hot cut cost of over \$185 found by the New York Commission.

- *Hot Cut Capacity is Insufficient to Serve the Mass Market:* The ILECs could not possibly perform the millions of hot cuts per month that would be needed in a competitive market. For example, the New York Commission recently found that if Verizon’s current UNE-P orders were converted to UNE-L orders, **Verizon’s hot cut capacity would have to expand by 4400 percent**, which is clearly not going to happen. New York Commission Comments at 4. (In fact, there are statements from the CWA in New York that Verizon is instead cutting back its hot cut capacity.) At current conversion rates and capacity, the New York Commission said that “it would take Verizon **over 11 years** to switch all existing UNE-P customers to UNE-L.” *Id.* And that would not account for adding new customers, or churn. Rather than seriously addressing the capacity issue in its Reply, Verizon baldly asserts that it is not a problem.
- *Hot Cut Reliability Remains Problematic in the Mass Market:* The BOCs tout problem-free hot cut performance 90+ percent of the time – but it is extremely difficult to build a mass-market customer base when there *any* significant chance of losing phone service. These errors occur in bulk, or “project” hot cuts as well – because they still ultimately rely upon manual provisioning. **Unlike business customers, mass market customers cannot save enough to justify the possibility of losing service.**

**C. The BOCs’ “UNE-Fact Report” Supports Z-Tel’s Arguments:**

- *The BOCs’ Report Suggests that Competitive Carriers Currently Serve, at Most, About 1/10 of 1% of the Mass Market via UNE-L:* “Figure 4” of the “Fact” Report shows that – putting aside cable franchises – the BOCs were able to find only nine companies that purportedly serve 25,000 or more residential lines. But the vast majority of those lines are **not served via UNE-L**. The “Figure 4” companies are primarily either ILECs or cable overbuilders – and no one seriously thinks that the Act is only about enabling competition by such companies. And even among those companies, **most either never sought to serve the mass market, or have abandoned plans to do so.**
- *The BOCs’ Latest List of CLEC-Deployed Switches:* The BOCs’ list of CLEC switches is entirely dominated by companies that obviously do not use their switches to provide services to the mass market via UNE-L. Instead, they primarily serve medium-sized and large business customers, for whom it makes economic sense to aggregate loops at the customer’s premises and provide service at a DS1 interface or higher. **This avoids the need for manual analog hot cuts at the ILECs’ central office to serve these customers.** (Large businesses with intensive bandwidth needs are a different market than the mass market – they will

agree to sign long-term contracts and can tolerate some degree of manual installation.) Z-Tel (like other commenters) estimates that aggregation may become economically viable at about 16-20 lines.

**D. Z-Tel's Impairment Arguments are Fully Consistent With USTA v. FCC:**

- *Z-Tel has Urged that Impairment Analysis Should be Market-Specific:* USTA faulted the Commission for adopting impairment rules of “unvarying scope.” Z-Tel wholeheartedly agrees with the D.C. Circuit’s view that the large business and mass markets should be distinguished and analyzed separately.
- *Cost Disparities:* USTA cautioned that impairment cannot properly be based on “cost disparities” that would be “faced by virtually any new entrant in any sector of the economy.” But the **hot cut (and related) costs giving rise to impairment for CLECs seeking to serve the mass market are unique to that market** – Z-Tel is not aware of *any* other industry where new entrants must pay established monopolists for the privilege of attracting the monopolists’ customers.
- *Verizon:* The Commission must be cautious not to over-read USTA. Verizon expressly indicated that the Act is intended to promote broad unbundling to give “aspiring competitors every possible incentive to enter local” markets and overcome the monopolists historical advantage. Accordingly, *dicta* in USTA to the effect that the Commission should limit unbundling to facilities with natural monopoly characteristics must be viewed with skepticism, particularly since the Commission’s next order will not necessarily be reviewed in the D.C. Circuit.

---

**II. The Commission should continue to recognize state authority to establish additional unbundling requirements.**

- *Plain Language:* Section 251(d)(3) expressly provides that the FCC “shall not preclude the enforcement of any regulation, order, or policy of a state commission that . . . establishes access and interconnection obligations of local exchange carriers.” When the Commission tried, in 1996, to construe this language to prohibit state unbundling rules that were inconsistent with the Commission’s regulations, the Eighth Circuit reversed. The court held that section 251(d)(3) was meant “to shield state access and interconnection orders from FCC preemption.” *Iowa Utilities Board*, 120 F.3d at 807.
- *States are Better Able to Undertake the Required Granular Analysis:* As NARUC’s comments noted, “[s]tate regulators have access to the detailed real-world information that is essential” to determining what UNEs should be unbundled in particular markets. NARUC Comments at 7. State regulators are able to employ **fact-finding procedures**, including detailed discovery, live testimony, and cross-examination, that are not generally available to the FCC. *Id*

- *State commissions support the UNE platform for mass market consumers:* Those states that have undertaken detailed analysis of the need for UNE-P have generally endorsed state-wide unbundling of the UNE platform for the mass market. New York and Texas, in particular, correctly emphasized hot cut bottleneck problem in reaching that conclusion.

III. The section 271 checklist requires the BOCs to unbundle loops, transport, and switching, and there is no basis for forbearance from its requirements at this time.

A

#### Section 271

- *Plain Language:* The second item on the checklist requires BOCs to provide “[n]ondiscriminatory access to network elements” in accordance with sections 251(c)(3) and 252(d)(1). Items four through six of section 271 require that “loop transmission,” “transport,” and “switching” be provided on an “unbundled” basis. The two provisions thus plainly require that the BOCs provide unbundled access to loops, transport, and switching at cost-based rates and in accordance with the other provisions governing interconnection agreements.
  - There is absolutely **no textual support** for Verizon’s contention that loops, transport, and switching suddenly cease to be “network elements” if the Commission finds that they need not be unbundled under section 251(d)(2).
- *The Problem of “Surplusage”:* Construing the checklist as the BOCs advocate to require only what section 251(d)(2) requires would violate a “cardinal principle” of statutory construction – it **would render the checklist items mere “surplusage.”** The checklist items have meaning only if BOCs are required to unbundle those elements even *after* those items are not required to be unbundled pursuant to the standards of section 251.
- *The Commission’s Prior Construction of Section 271:* In the *UNE Remand Order*, the Commission expressly construed section 271(c)(2)(B) to “require[] BOCs to . . . provid[e] . . . to requesting carriers the following network elements: local loops, transport, switching, databases and signaling.” 15 FCC at 3905. Agreeing with the BOCs now that section 271 does not require unbundling independent of that mandated by section 251 would oblige the Commission to repudiate its earlier interpretation of section 271.
- *Maintaining Unbundled Switching and the Other Elements of the UNE-P Necessary to Serve the Mass Market Would Serve the Core Purposes of the Act*
  - *Congress Intended the Act Is to Eliminate the Local Monopoly:* According to the Supreme Court, the Act was intended to introduce competition to “persistently monopolistic local markets, which were

thought to be the root of natural monopoly in the telecommunications industry.” *Verizon*, 122 S. Ct. at 1654. The act was “designed to give aspiring competitors every possible incentive to enter local retail telephone markets, short of confiscating the incumbents’ property.” *Id.* at 1661.

- There is absolutely no statutory basis for Verizon’s view that Congress intended competition using leased network elements to be just a short-term, transitional measure. Both the *AT&T* and *Verizon* cases indicate that Congress intended UNE-based competition to be one of three equally important modes of competitive entry.
- *Congress Intended Parity Between Local and Long Distance Entry*: Congress expressly envisioned that “[w]hen we open local service exchanges to competition, then the Bell operating systems will [be able to] go out and compete in the long distance market.” 141 Cong. Rec. S8,135 (Sen. Dorgan). As Senator Breaux put it, “You can get in my business when I can get in your business.” 141 Cong. Rec. S8,153. BOCs can now “get in” the long distance business (once they receive section 271 authorization) by simply leasing interexchange capacity and paying less than \$5 per customer to switch the customer electronically to its service. In contrast, for a CLEC like Z-Tel to “get in” the local market via UNE-L (as the BOCs would require), the CLEC must pay tens or even hundreds of dollars per customer in hot cut costs. Because that is simply not a viable entry strategy, under the BOCs’ approach, no “parity” would exist.
- *Congress Intended that the BOCs Must Provide Loops, Transport, and Switching for the “Reasonably Foreseeable Future”*: Congress knew that local competition would not develop overnight. Senator Pressler, the sponsor of the Senate Bill, explained that the checklist would require the BOCs to continue to unbundle the three core elements for the “reasonably foreseeable future.” 141 Cong. Rec. S8,469 (Sen. Pressler).

***B. No Justification for Forbearance***

- *Verizon’s Petition is Premature*: So long as the BOCs are required to unbundle loops, transport, and switching under section 251(d)(2), the question of “forbearance” from 271 does not arise. The Commission should require Verizon to refile after issuance of a Triennial Review decision, to **avoid wasting everyone’s time now**.
- *Verizon’s Forbearance Argument Just Repeats its Erroneous Statutory Interpretation*: Verizon’s “forbearance” argument essentially ignores the requirements of section 10. Verizon’s entire “forbearance” argument rests on its

assertion that the section 271 checklist adds nothing to the requirements of section 251(d)(2). That argument would render the checklist mere “surplusage.”

- *The Anti-Backsliding Provision:* Section 271(d)(6) provides for a range of penalties “if the Commission determines that a Bell operating company has ceased to meet any of the conditions required for [section 271] approval.” Accordingly, it is clear that section 271 is not “fully implemented” simply because the checklist has been initially satisfied. Section 271 imposes continuing obligations.
- *Constitutional Issues:* “Forbearing” from enforcing section 271 would raise serious questions about the Commission’s section 10 authority. The forbearance provision represents an unprecedented delegation from Congress to the Commission of authority to repeal portions of the Act. The Supreme Court has held that the President may not constitutionally be authorized to repeal portions of an Act, see *Clinton v. City of New York*, 524 U.S. at 439, and neither may the Commission.
- *Unbundling Should be Maintained Until There are Alternative Sources of Supply:* Contrary to the BOCs arguments, Z-Tel does not urge that the UNE platform should be preserved in perpetuity. The key question, though, is: “What must occur before a CLEC like Z-Tel **could viably serve the mass market**, in the absence of the platform?” The answer is clear: Z-Tel would need to be able to get the elements of the platform from someone other than the current monopolists – *i.e.*, **from a fully-functional wholesale market** that can provide seamless conversions at sufficient capacity to meet demand. That is the situation today for the BOCs in the long-distance market, where they lease wholesale capacity.

## WHERE UNE-P IMPLEMENTED, CONSUMERS BENEFIT STATEWIDE

*With manually-provisioned UNE Loops, competition is scant and concentrated*

The ability to provision orders electronically and ubiquitously allows competitors to utilize UNE-P to offer mass market residential and small business consumers a competitive choice today. The data below, obtained from SBC and BellSouth through discovery in state proceedings and aggregated here, clearly shows that UNE-P provides **geographically ubiquitous** competitive mass-market coverage. Other forms of entry -- notably UNE Loop -- are not ubiquitous. Because of this potential ubiquitous competitive response, it is no surprise, then, that State regulators have implemented UNE-P under state law as part of retail price cap regulation of ILECs.

### Where's the Competition in Texas?

#### Local Entry By Size of SBC Central Office (Oct 2001)

Wire Center Ranking	Average Lines/CO	Competitive Penetration	
		UNE-L	UNE-P
The 10% Largest Wire Centers	102,571	2%	8%
Next 10%	54,443	1%	11%
Next 10%	34,139	1%	12%
Next 10%	20,331	0%	13%
Next 10%	12,309	0%	16%
Next 10%	7,218	0%	17%
Next 10%	4,265	0%	18%
Next 10%	2,532	0%	21%
Next 10%	1,373	0%	25%
Smallest 10% Wire Centers	485	0%	21%

### Where's the Competition in Georgia?

#### Local Entry By Size of BellSouth Central Office (2002)

Wire Center Ranking	Average Lines/CO	Competitive Penetration	
		UNE-L	UNE-P
The 25 Largest Wire Centers	67,977	3%	6%
Next 25 Largest Wire Centers	40,012	2%	9%
Next 25 Largest Wire Centers	26,616	1%	8%
Next 25 Largest Wire Centers	13,542	0%	8%
Next 25 Largest Wire Centers	6,943	0%	6%
Next 25 Largest Wire Centers	3,875	0%	7%
Smallest 28 Wire Centers	1,697	0%	6%

# Papers on Local Telecommunications Competition and Policy



## Papers on Local Exchange Competition and Policy

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*All of these papers can be downloaded at either [www.telepolicy.com](http://www.telepolicy.com) or [www.phoenix-center.org](http://www.phoenix-center.org).*

Why ADCO? Why Now? An Economic Exploration of Industry Structure for the "Last Mile" in Local Telecommunications Markets, Randy Beard, George Ford, and Larry Spiwak (published in the *Federal Communications Bar Journal*, 2002).

This paper explains why the "transition to facilities" argument is meritless. The supply-side economics of local telecommunications prohibits a large number of facilities-based competitors. This is not true (to the same degree) on the retail side. Much like the current long-distance markets, where about 900 retailers are serviced over about 7 nationwide fiber networks, industry structure in the local market must bifurcate into a retail and wholesale segment for real competition to exist. Unbundling allows CLECs to acquire market share, which then serves as a non-ILEC demand for local exchange network. Without unbundling, there is not demand for alternative networks – consumers don't demand network, carriers do. Without available and effective demand, the costs of constructing local network can never be recovered – as is evident in the collapse of the segment of CLEC industry which adopted a "built it and they will come" business plan. The prudent path, made possible by unbundling, to "build it after they come."

Facilities-Based Entry in Local Telecommunications: An Empirical Investigation, Randy Beard, George Ford, and Tom Koutsky.

This paper shows, using econometrics, that the deployment of end-office switching by CLECs is not attenuated in markets where unbundled switching prices are low. Instead, CLEC deployment of switches is actually higher in markets with low switching rates. A theoretical model explains the possible relationships between deployment and unbundling, and the theory provides no unambiguous conclusions (low switching rates may increase or decrease CLEC switch deployment). Thus, the issue is plainly empirical. The empirics show that low switching rates increase deployment. In markets where access to unbundled switching is restricted, there are fewer CLEC switched deployed.

Make-or-Buy? Unbundled Elements as Substitutes for Competitive Facilities in the Local Exchange Network, Randy Beard (Auburn University) and George Ford, PHOENIX CENTER POLICY PAPER NO. 14 (September 2002).

The amount of CLEC entry using unbundled elements is highly sensitive to the price for such elements. A 10% increase in the price of an unbundled loop or switching reduces CLEC lines by more than 10% (i.e., the demand for UNEs is *elastic*). The cross-price elasticity between loops purchased with and without switching is zero. Thus, UNE-Platform does not reduce the demand for UNE-Loop (as the BOCs claim). From an antitrust perspective, the findings in this paper indicate that UNE-Loop and UNE-Platform service different markets. The paper also includes a statistical test of impairment with respect to switching, and finds that impairment exists.

A Fox in the Hen House: An Evaluation of Bell Company Proposals to Eliminate their Monopoly Position in Local Telecommunications Markets, PHOENIX CENTER POLICY PAPER NO. 15 (September 2002).



Between UNE-P, UNE-L, and full facilities-based entry, the BOCs' revenues are greatest with UNE-P. The other forms of entry leave BOC network stranded. Why then, do the BOCs prefer facilities-based competition? The answer is obvious. While the BOCs may lose more profit on a per-line basis from facilities-based entry, there is considerably less of it. By slowing competitive growth to a trickle, the total loss in margin is trivial. UNE-P, alternately, allows for the rapid growth of competition, and while BOC margin loss is less, the total margin loss is greater.

What Determines Wholesale Prices for Network Elements in Telephony? An Econometric Evaluation, George Ford and Randy Beard (Auburn University), PHOENIX CENTER POLICY PAPER NO. 16 (September 2002).

The BOCs' claim that state commissions have failed to base element rates on forward-looking cost (as required by the FCC's TELRIC standard) is evaluated econometrically. In contrast to the BOCs' assertions, forward-looking economic cost is the primary determinant of wholesale prices for network elements. Retail prices play no direct role in determining wholesale prices for UNEs. However, the state commissions have, according to the statistical model, set wholesale prices above forward-looking costs to provide the BOCs about half of their existing retail margins. While so, forward-looking costs are, by far, the more important determinant of wholesale prices for UNEs. Mr. Seidenberg was wrong – the state commissions 'do get it.'

Unbundling and Facilities-Based Entry by CLECs: Two Empirical Tests, by George S. Ford, Ph.D. and Michael D. Pelcovits, Ph.D. (former MCI Chief Economist, now with the consulting firm MICRA).

The number of lines served on CLEC-only facilities (i.e., pure facilities based) is positively related to market size and market density, and negatively related to the price of unbundled loops and unbundled switching. In an alternative test, the authors find that RCN's entry is negatively related to the price of unbundled loops. Thus, there is no evidence that there is more facilities-based entry where UNE rates are higher. In fact, the opposite is true.

Preliminary Evidence on the Demand for Unbundled Elements, Robert Ekelund, Jr. and George Ford (forthcoming in *Atlantic Economic Journal*, December 2002).

This paper estimates the demand elasticity for UNE-Platform. The paper finds that a 10% increase in the price of UNE-P elements reduces quantity of UNE-P sold by 27%. Thus, it is little surprise that the BOCs are now attacking the price of UNE-P elements, as well as availability.

Innovation, Investment, and Unbundling: An Empirical Update, Robert B. Ekelund, Jr. and George Ford (forthcoming in the *Yale Journal on Regulation*, Spring 2003).

In an article in the *Yale Journal on Regulation*, Bell advocates Thomas Jorde, Gregory Sidak, and David Teece (JST) commented on some potential economic consequences of the Telecommunications Act of 1996 as implemented by the Federal Communications Commission, and offered one interesting and testable proposition. Specifically, JST propose that mandatory unbundling increases the riskiness and cyclicality of the ILEC's [Incumbent Local Exchange Carriers] economic performance and, hence, on the ILEC's weighted-average cost of capital. This hypothesis is tested empirically using standard procedures. We find no evidence supporting the hypothesis of JST regarding the ILECs' cost of equity capital.

## Why ADCo? Why Now?

### An Economic Exploration into the Future of Industry Structure for the "Last Mile" in Local Telecommunications Markets

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#### I. INTRODUCTION

It is now more than five years since the passage of the landmark Telecommunications Act of 1996 (1996 Act), but instead of flourishing competition, the competitive local carrier sector has experienced a financial

1. T. Randolph Beard et al., *Why ADCo? Why Now? An Economic Exploration into the Future of Industry Structure for the "Last Mile" in Local Telecommunications Markets* (Phoenix Ctr. Policy Paper No. 12, Nov. 2001), available at <http://www.phoenix-center.org/pap12.pdf>.

Blackburn, the issue can be narrowed to several fundamental misconceptions about the underlying economics of the telecommunications business. By all of the major stakeholders, including Wall Street, everybody believed that: (a) entry into the local market would be relatively unexpensive; (b) the market immediately would be capable of sustaining multiple local access networks; and (c) as a result of their desire to enter the long-distance business, incumbents would gladly embrace competitive entry.

[illegible]

- 2 For example, according to Webometrics.com at least 750 Internet companies linked between January 2000 through December 2001. Moreover, 10,000 Internet providers used one or more e-mail accounts (up from 19 in all of 2000), and 207 access providers used e-mail addresses (up from 19 in all of 2000). See <http://www.webometrics.com/Internet.php?id=49> (last visited Jan. 22, 2002). Internet.com, however, it does not look like it is a company you are going to ignore any time soon. See, e.g., *Am. Law. Inst. Prop. & Intell. Prop. Ass'n v. Internet.com, Inc.*, 100 F.3d 1206, 1211 (9th Cir., 1997).
- 3 See, e.g., *Alban Shaban, Landis v. Internet.com, Inc.*, 100 F.3d 1206, 1211 (9th Cir., 1997).
- 4 *Land. v. Internet.com, Inc. and the Internet.com, Inc.*, 100 F.3d 1206, 1211 (9th Cir., 1997).
- 5 See, e.g., *Alban Shaban, Landis v. Internet.com, Inc.*, 100 F.3d 1206, 1211 (9th Cir., 1997).
- 6 While the vast part of the local exchange service is perhaps the most challenging part of the local exchange policy, the supply-side component of the competition competition network, including switching and transport, also presents challenges.
- 7 The "last mile" is a term of reference and is not meant to describe a "measured mile." Indeed, the "last mile" can be as small as a few feet or yards.

7. See, e.g., Rebecca Blumenthal, *Telecom As It Hasn't Behaved Promised Prices* (New York: Basic Books, 1997), pp. 10-11. The article discusses the FCC's decision to allow long distance carriers to use the local exchange network for long distance calls, and the resulting competition between local and long distance carriers. The article also discusses the FCC's decision to allow long distance carriers to use the local exchange network for long distance calls, and the resulting competition between local and long distance carriers.

1. *Relief, WALT ST. J. MAYER, J. 2001, p. 01, B4*  
2. *Id.*, p. 8. (Mayer E. Whitlauer, "The Economic Implications of Capitalism  
(first three 1995).  
3. But cf. John Herman, *FCC Targets Multinationalism for State of EVE Action*,  
(*Times Daily*, Nov. 30, 2001), at 1 (reporting FCC Chairman William (Chief Dinning)  
Armstrong's comment at a conference sponsored by the Association of Local  
Telecommunications Services ("ALTS"). According to Herman, "the KKKKK" who  
also said "the one winner" these companies (against the KKKKK) who  
practices) but the right language to be in (all) "the FCC and CLEC to  
try to work together to resolve disputes over rate of interconnection before they  
escalate to FCC. There are no winners. When the industry of competing business  
people formed, it would said that was my job and that was my job" that they  
couldn't figure out how to resolve disputes so they agreed to be willing to  
compromise more "I think it's in the interests of the industry to be an efficient  
12 (companies added).



explain that given the underlying economics of the market, and that much concentration to telecommunications markets is expected to be relatively high." Accordingly, capturing a large number of competitors in local access markets—particularly a large number of network-based competitors—is entirely unreasonable.

Second, this Article will evaluate in a summary fashion the two primary forms of entry observed since the passage of the 1996 Act.

Option 1:

**Element-Dependent Entry ("EDE").** An entry strategy where the new entrant relies heavily on the elements of a redundant incumbent, rather than build its own network, and purchases local access from the incumbent via special access lines, high-capacity circuits (TTS), full resale, individual unbundled network elements ("UNEs"), or even the entire L/NB platform ("NBE").—a combination of the local loop, unbundled switching, and transport elements. This form of entry includes those entrants relying on the elements of the incumbent until their own networks are deployed (i.e., a "small-build" strategy). As these firms must also sink large amounts of capital in equipment to enter, however, these firms are certainly "facilities-based" entrants, albeit not "network-dependent" entrants as discussed in the next paragraph.

Option 2:

**Network-Based Entry ("NBE").** A strategy where a CLBC seeks to build its own local access network from scratch with little or no reliance on the incumbent's network.

Third, this Article will explore the full impact of the incumbents' incentive to frustrate competitive entry by selling forth a simple economic model that analyzes the incentives of a vertically integrated supplier—one

18. See also T. Randolph Beard & George S. Ford, *Competition in Local and Long-Distance Telecommunications Markets: In The International Handbook of Telecommunications Economics* (Gary Blieden & Scott I. Savage eds., forthcoming 2002).

19. Given the geographic specificity of a telecommunications plant, it is possible for many firms to produce telecommunications services. However, very few firms actually will compete in the same geographic area. For example, there are many cable television firms, but nearly every cable system is a monopoly.

that operates in both the upstream wholesale market and in the downstream retail market—to provide inputs of production to actual or potential competitors. For consistency with the reality of building a local exchange plan, this model assumes that there are economies of scale or density in the downstream retail market. Also assumed for modeling purposes is that services are profitably supplied. As the model reveals, the incentives to supply the "upstream" or "wholesale" market or cost-based prices, thus facilitating competition in the "downstream" or "retail" market, are inversely related to the market share of the firm in the retail market—irrespective of whether the firm is an LEC or a CLBC, though the CLBC has no incentive to sabotage its customers. The model illustrates that there is a fundamental tension between the benefits of large scale, wholesale operation, and the disincentives that firms with large retail operations have to "share" those wholesale benefits with retail competitors through the efficient sales of network facilities.

Finally, this Article uses the model to compare the incentives of the vertically integrated suppliers to those of wholesale-only suppliers (ADCCs). As explained below, given the existence of the LECs, discontinuity incentives resulting from the current and foreseeable economic conditions of the U.S. telecommunications industry, the model suggests that the most probable and viable long-term, competitive market structure involve a substantial presence by an unbundled, but larger, wholesale supplier—in other words, an ADCC—in function efficiently. Accordingly, their presence in the market should be welcomed and encouraged.

II. BASIC ISSUES OF INDUSTRY STRUCTURE AND ENTRY

A. Introduction

Elementary economic analysis can shed considerable light on the long-run structure of the U.S. telecommunications industry, an issue of

20. The model assumes that either economies of scale or density exist, but the form of "economies of scale" is used throughout this paper. "Economies of density" describes the relationship between costs and throughput rate. "Economies of density" describes the relationship of costs and output for a fixed size. Rather, interpretation of the relationship of cost and output is consistent with the analysis of this paper.

21. Ify "large" was more large enough to achieve sufficient economies of scale for the market being served. While our focus is generally on the last mile or last yard, economies of scale can be substantial in other areas. For example, the systems and electronic interfaces required for a CLBC to transmit successfully with an LEC may be subject to scale economies. If true, then this "prewiring" interface may be best provided on a wholesale basis.

enormous importance. The role of competition policy is to create an environment in which feasible long-term arrangements—those that are consistent with robust, commercially successful local competition—can take place. One example of such analysis is provided in *Changing Industry Structures: The Economics of Entry and Price Competition*.<sup>23</sup> In this policy paper, Duvall and Ford show that the equilibrium level of concentration in telecommunications markets will be relatively high. The presence of sunk costs, in any industry, limits the number of firms that can profitably serve a market. The larger sunk costs are relative to market size, the higher the equilibrium level of concentration.

More formally, Duvall and Ford show theoretically that the equilibrium number of firms in a market ( $N^*$ ) is the integer part of:

$$N^* = \frac{K}{\phi \Delta t}$$

where  $\phi$  is an index of the intensity of price competition ( $\phi \geq 0$ , where  $\phi = 1$  for Bertrand, or highly intense, price competition, and  $\phi = 1$  for Cournot competition in quantities),  $K$  is market size,  $K$  measures the sunk entry cost, and  $1/\Delta t^*$  is the equilibrium level of industry concentration and is equal to the Herfindahl-Hirschman Index ("HHI") under the assumption of identical firms.<sup>24</sup> Put simply, the number of firms supplying a market is positively related to the size of the market ( $\Delta t$ ), but inversely related to the intensity of price competition ( $\phi$ ) and the sunk costs of entry ( $K$ ). The larger are fixed/sunk costs, other things constant, the fewer the firms that can profitably supply the market and the higher is equilibrium industry concentration. Likewise, the more intense the price competition, the higher the industry concentration.<sup>25</sup>

The inability of local telecommunications markets to support high levels of competition can be illustrated by example. Telecommunications firms (TCN) targets residential customers in densely populated markets with its own network facilities, over which it provides telephone, data, and video services.<sup>26</sup> According to its financial documents, TCN has \$2.75 billion in

23. The models assume all firms are identical. The HHI, the sum of the squared market shares of relevant firms, is a commonly used measure of industry concentration.

24. Generally, price competition is expected to be weaker in highly concentrated markets. When entry requires sunk costs, however, this expectation can be invalid.

25. According to TCN's 10-Q Form, about 12% of TCN's phone customers are "not" supplied over the HHI's network via resale. TCN (June, 2001) (TCN's 10-Q Form 10-Q) (June, 9, 2001), available at <http://www.tcn.com/investor/index.html>.

plant and passes about 1.5 million homes, or 1.1 million marketable homes.<sup>27</sup> Plant investment runs about \$1,750 per home passed, \$2,300 per marketable home, or about \$6,500 per customer.<sup>28</sup> A rough estimate of TCN's monthly plant costs (assuming a 15% hurdle rate and 15-year payoff) is about \$25 per home passed. Average monthly revenue per subscriber is about \$130 and direct costs are about 46% of revenues, implying a gross monthly margin of about \$68 per subscriber. In order to cover plant costs with its net revenues, TCN needs a penetration rate of about 35% to 40%, and that is in the more densely populated markets targeted by TCN over a network capable of generating services worth \$110 per subscriber. Notably, if a 35% to 40% penetration rate is required for profitability, then only two firms can profitably serve the same market, and TCN and the incumbent make two.<sup>29</sup> To construct an RCN-style network for every household in the United States, the plant investment and total entry costs would be about \$300 billion and \$600 billion, respectively.<sup>30</sup> Clearly, network-based entry is incredibly costly and is not something that is replicable by numerous firms in the same market.

Similarly, the metropolitan fiber rings and spurs needed to provide service to large businesses are incredibly costly as well. Some fiber companies estimate that fiber deployment in a metropolitan area routinely costs \$3 million per mile.<sup>31</sup> Thus, construction of a large metro ring or mesh could easily exceed \$100 million.<sup>32</sup> Further, most if not all of these costs are sunk; roughly half of the costs of metropolitan fiber are installation expenses.<sup>33</sup> The services provided over metropolitan fiber networks vary, as

26. RCN Corp., 2000 Annual Report (2001), available at <http://www.rcn.com/investor/index.html>. Marketable homes are those homes that RCN's network can immediately serve.

27. Values are based on RCN's 1998, 1999, and 2000 Annual Reports. For example, between 1999 and 2000, RCN's plant and property grew by \$1.5 billion while its marketable homes grew by about \$50,000. In 1999, RCN's penetration rate into marketable homes was about 46%. *Id.* (see also RCN (2001), 1999 Annual Report (2000), available at <http://www.rcn.com/investor/index.html>); RCN (2001), 1998 Annual Report (1999), available at <http://www.rcn.com/investor/index.html>).

28. With a reasonable guess of the minimum penetration a firm needs to cover its costs, the number of firms that can operate in a market is the integer part of the inverse of the minimum penetration (e.g.,  $1/0.46 = 2.17$ ).

29. These investment estimates are rough. Plant investment is estimated by assuming the cost differential and population distribution across density zones are similar to those estimated by the HAI Model (v. 2.2.2), a total circuit long-run incremental cost model developed by IIA and Associates, AT&T, and MCI-WorldCom. RCN's current network is assumed to be deployed in the two most dense zones. Although entry costs are assumed to be about \$1 per every \$1 of plant (see Table 1 *supra*).

30. The costs of any particular installation vary widely. See Skoczny, *supra* note 16.

31. *Id.* at 6.

32. *Id.* at 7, 9.

do the size and scope of these networks. Thus, simple probability models like the RCM example are difficult to construct. However, the fact that less than 10% of buildings have fiber drops suggests that the sunk costs in the network are sizeable relative to market size.

The use of the word "economy" in the title of the book is not accidental. It is a word that has been used in many different ways, and it is important to understand what it means in the context of the book. The word "economy" is derived from the Greek word *oikos*, which means "household" or "family". In the context of the book, it refers to the household of the church, which is the community of believers who are united together in the love of God. The book is a study of the household of God, and it is a study of the love that binds the members of the household together. The book is a study of the love that is the foundation of the church, and it is a study of the love that is the foundation of the world. The book is a study of the love that is the foundation of all things, and it is a study of the love that is the foundation of our lives. The book is a study of the love that is the foundation of our faith, and it is a study of the love that is the foundation of our hope. The book is a study of the love that is the foundation of our charity, and it is a study of the love that is the foundation of our life. The book is a study of the love that is the foundation of our salvation, and it is a study of the love that is the foundation of our redemption. The book is a study of the love that is the foundation of our sanctification, and it is a study of the love that is the foundation of our glorification. The book is a study of the love that is the foundation of our eternal life, and it is a study of the love that is the foundation of our eternal joy. The book is a study of the love that is the foundation of our eternal peace, and it is a study of the love that is the foundation of our eternal happiness. The book is a study of the love that is the foundation of our eternal glory, and it is a study of the love that is the foundation of our eternal life.

B. *Sunk Costs and the Necessity of Achieving Sufficient Economies of Scale and Scope*

The fact that economists of scale (or density) and sunk costs play a key role in telecommunications networks and without saying in order to achieve profitability in a reasonable time frame, therefore, the large fixed costs of the plant must be averaged over a large quantity of services that are sold relatively quickly. Ignoring this reality has put many a CLEC into bankruptcy.

An important misconception policymakers and Wall Street have about

1. **Содержание**  
 2. **Введение**  
 3. **Глава I. Общие положения**  
 4. **Глава II. Организация и структура**  
 5. **Глава III. Основные задачи и функции**  
 6. **Глава IV. Методы и средства**  
 7. **Глава V. Результаты и выводы**  
 8. **Заключение**  
 9. **Список литературы**  
 10. **Приложения**

For example, Douglas Galbi estimates A.T.&T.'s annual marketing expenses to be approximately \$2 billion per year from 1994 through 1997. Galbi also provides evidence that marketing expenses in the long-distance industry are subject to economies of scale. Other sources indicate that

13. *Id.* at 9. See also Yuki Negashii, *U.S. Says \$275 Million in Funding Washed Clean*, APR. 10, 2010, at <http://www.washingtonpost.com/local/foreign-10-9-10/>, <http://www.washingtonpost.com/local/foreign-10-9-10/>, and <http://www.washingtonpost.com/local/foreign-10-9-10/>.  
14. Hughes & Galati, *Some Courts of Competition 5* (Jan. 24, 1999) (unpublished manuscript on file with author), available at <http://www.galati.com>.

Գրքի հեղինակը և խմբագիրը չեն կրել պատասխանատվություն հրատարակված տեղեկությունների ճշգրտության համար:

[illegible]

35. See for *Whom the Bell Tolls*, Bernice Koshin, Feb. 1997, at 55-56; see also Press Release, Juno Online Services, Inc., Juno Online Services, Inc. Reports Record Third Quarter Results (Oct. 27, 1999), available at [http://www.junonline.com/investor\\_relations/press\\_releases.html?id=30238](http://www.junonline.com/investor_relations/press_releases.html?id=30238).

- [illegible]

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Table 1. Entry (costs and plane

Entity	Costs (\$)	Net Plant (\$)	E/P	P/E
XC	\$10,739	\$3,505	\$3.06	34%
Allegiance	\$2,083	\$919	\$2.22	45%
RCN	\$4,859	\$2,331	\$2.08	48%
Comcast	\$2,414	\$294	\$8.20	12%
Mediacom	\$8,260	\$3,220	\$2.57	39%
Talk America	\$129	\$80	\$5.37	19%
Northpoint	\$1,041	\$455	\$2.29	41%
ITC/Mediacom	\$1,036	\$708	\$1.46	68%
USLEC	\$369	\$191	\$1.93	52%
Weight Average			\$3.06	36%

As the above illustrates, investment in plant is typically a very small proportion of total investment in most industries. As Table 1 further demonstrates, the average plant capital stock is significantly lower than the average fixed capital stock. The average plant capital stock is only 1.5% of the total fixed capital stock. This is a relatively low ratio of 1.5% to the total fixed capital stock. However, the plant investment is a much larger proportion of the total investment in plant. For example, in the manufacturing industry, the plant investment is 38% of the total investment in plant. In the services industry, the plant investment is 25% of the total investment in plant. In the construction industry, the plant investment is 10% of the total investment in plant. In the agriculture industry, the plant investment is 5% of the total investment in plant. In the mining industry, the plant investment is 3% of the total investment in plant. In the transportation industry, the plant investment is 2% of the total investment in plant. In the communication industry, the plant investment is 1% of the total investment in plant. In the public administration industry, the plant investment is 0.5% of the total investment in plant. In the health industry, the plant investment is 0.2% of the total investment in plant. In the education industry, the plant investment is 0.1% of the total investment in plant. In the social services industry, the plant investment is 0.05% of the total investment in plant. In the other industries, the plant investment is 0.01% of the total investment in plant. This shows that the plant investment is a very small proportion of the total investment in most industries.

When considering the prospects and sustainability of competitive activity in telecommunications markets, therefore, consideration of scale and network costs cannot be ignored. Nor can the focus on such costs be limited to network investment, indeed, as we shall see in the following Sections, the extent of scale economies is an important determinant not only in the level of industry concentration but also in the type of firms that exist in an industry (in different ways).

40. Please and confirm each at least by e-mail to [www@wpcn.ch](mailto:www@wpcn.ch)

One of the cornerstones of the 1996 Act is the unbundling obligation imposed on the LECs. The original idea behind unbundling is that because there are high entry barriers into the local access market—unbundling—i.e., a weak form of divestiture—would permit new firms to “disrupt” those barriers to accelerate the pace of competition. In its most literal form, unbundling should lead to new network-based competition by providing new entrants initially with the appearance of “thinly” and “economies of scope” necessary to enter a very costly business—i.e., the environment would first develop its customer base, and (because it has no desire to purchase its primary inputs of production from its rivals) would then build-in no-wait as conditions warrant. Such a strategy is often referred to as a “smart-build” approach. This is precisely what the FCC did in its 1981 MTS/WATS Resale Decision to great success for the U.S. long-distance

(c) *Unbundling and the Necessity of Creating Sufficient Noncontingent Demand*

This is now to say that the unbundling provisions of the 1996 Act are a failure and should be eliminated. On the contrary, unbundling is critical to developing sufficient noncompetition demand for new network-based facility investment to warrant the entry of an ADO. That is to say, as demand for network elements becomes less concentrated (i.e., the TLEs does not serve all subscribers), the potential for rapid and large unitizations of demand off the incumbent's network to an alternative network exists. While the dominant incumbent provider will rarely, if ever, demand the facilities of an alternative element supplier, the risk of entry by a competitor is considerable without existing demand for elements. (The proverbial "build it and they will come" unbundling mireds substantial portions of but not for CLECs.) Yet, if unbundling mireds substantial portions of competitor is considerable without existing demand for elements. (The proverbial "build it and they will come" unbundling mireds substantial portions of but not for CLECs.)

41. 47 E.L.C. ¶ 2510X31 (Supp. V 2000).  
42. See Nasser & Spivack, *supra* note 4, at 208. The term "smart build" has other meanings as well. In some contexts, for example, "smart build" refers to a slow, meticulous buildout strategy designed to maximize the market potential with limited capital resources.



telecommunications demand to new entrants, then an ADCo can enter and consolidate (or aggregate) this new nonincumbent demand for network elements dispersed among the various firms who currently purchase UNEs from the incumbent, much like building a shopping center with your anchor tenants already secured. In so doing, network-based entry occurs both in the form of new alternative network construction, and in terms of new technology investment (e.g., interconnecting a sophisticated database to the incumbents' advanced intelligent network ("AIN")) to permit advanced managed-IP products and services. Large-numbers competition occurs at the retail and application level, whereas small-numbers competition occurs at the wholesale or network level. This arrangement is most compatible with the underlying economics of the telecommunications industry.

### III. THE CURRENT SITUATION: ENTRY AFTER THE 1996 ACT

In this Section, this Article examines two primary forms of CLEC entry strategy observed since the passage of the 1996 Act. Entry strategies are varied, so it is difficult to classify CLECs into broad categories. However, there appear to be two very different entry modes at a high level of generality in use: entrants that depend heavily on ILEC facilities, and those that do not. While these entry strategies are apparently quite different, similarities exist between the two. Nearly all entrants, for example, must deal with the ILEC in some way.

#### A. Element-Dependent Entrants: The "Buyers"

First, there are those entrants that rely heavily on the elements of the ILEC (the dominant incumbent, integrated supplier) called "element-dependent entrants" ("EDEs"). This group of entrants ranges from those using total services resale to those combining ILECs' local distribution plant, from local loops to high capacity circuits, with self-supplied elements. DSL providers, for example, rely on ILEC loops and collocation space. Switch-based entrants also rely almost exclusively on ILEC loop plant and provisioning labor, such as hot-cuts, which is combined with self-supplied switching. UNE-P, or the combination of loops, local switching, and transport, is an element-dependent entry strategy that relies heavily on ILEC elements. In some cases, however, the UNE-P CLECs integrate their own technology into the platform to customize the service.<sup>43</sup> In fact, with the exception of total service resale, virtually all EDEs integrate some type

43. For example, Z-Tel Communications integrates a variety of call control features, Internet functionality, and streaming with the UNE-P. Z-Tel Technologies, Inc., 2000 Annual Report 10-K (Mar. 28, 2001), available at <http://www.telnetworld.com/files.php?sym=ZTEL&trq=10k&ind=1&sr=2&page=2&ctra=0>

of facilities with the ILEC network. Thus, as noted above, while EDEs may not be new "network" facilities-based entrants, they should nonetheless be considered to be facilities-based entrants.

A problem faced by all EDEs is the ILECs' incentive to impede new entry, and examples of these incentives in action are readily available.<sup>44</sup>

44. See, e.g., Yuri Kiguchi, CLEC Nine-Bells, Bells Blimey Hobbies, Some Blimey America, WASH. POST, Dec. 16, 2000, at E1; Peter S. Goodman, FCC Chief Strives to Please Competitors, WASH. POST, May 8, 2001, at F1. Indeed, the incumbents are keeping the FCC's Enforcement Bureau busier than ever. For example:

• On September 14, 2001, the FCC's Enforcement Bureau announced that it entered into a Consent Decree with Verizon Communications, Inc. ("Verizon"), under which Verizon will make a "voluntary payment" of \$77,000 to the U.S. Treasury and will take certain remedial actions regarding its collocation practices. Verizon Comm. Inc., Order, 16 F.C.C.R. 16270 (Sept. 14, 2001).

• On May 29, 2001, the FCC affirmed the \$83,000 fine imposed by the Commission's Enforcement Bureau in March 2001 against SBC Communications, Inc. ("SBC") for violating reporting requirements under the Commission imposed pursuant to its approval of the merger application of SBC and Ameritech SBC Comm. Inc. Apparent Liability for Forfeiture, Order on Review, 16 F.C.C.R. 13466, 21 Comm. Reg. (F.R.) 1347 (May 29, 2001).

• Similarly, on January 18, 2001, the FCC sought to fine SBC \$94,500 after an independent audit discovered that SBC failed to comply with the FCC's rules that require incumbent telephone companies to allow competing telephone companies to place equipment in the incumbents' offices in certain areas. The Commission found that SBC failed to post promptly notices of all nonconsented sites that have run out of collocation space so competitors on its waste time and resources applying for collocation space when none exists. SBC Comm., Inc., Apparent Liability for Forfeiture, Notice of Apparent Liability for Forfeiture, 16 F.C.C.R. 10112 (Jan. 18, 2001).

• On November 2, 2000, the FCC settled with BellSouth Corporation to have them make a "voluntary payment" of \$750,000 to the U.S. Treasury and to take important steps to improve its compliance with FCC rules relating to the negotiation of interconnection agreements between competing carriers. BellSouth Corp., Order, 15 F.C.C.R. 21756 (Nov. 2, 2000). Indeed, the FCC's investigation disclosed that, for more than six months in 1999, BellSouth failed to provide a competitive with local data to support BellSouth's proposed prices for unbundled copper loops, despite the competitor's written request for such data. *Id.* para. 5. In addition to the \$750,000 voluntary payment, the Consent Decree obligates BellSouth to adopt procedures for expedited access to confidential information, including issuance of a standard nondisclosure agreement that complies with the relevant FCC rules, and to adopt procedures for competitors to elevate disputes regarding disclosure of confidential information to higher levels within BellSouth. *Id.* paras. 12, 13. In addition, BellSouth will provide training to its negotiators concerning the relevant statutory and

Additionally, EDEs are subject somewhat to the whims of regulation. Past and present regulatory failures, and the frequent capture of regulatory agencies by the HFCs, make element-dependent entry a somewhat risky endeavor. Those risks, however, are at least partially offset by the decreased risk provided by the reduction in sunk cost investments. Because regulators can substantially impact the financial condition of EDEs, regulatory costs for EDEs can be substantial.<sup>14</sup>

The FCC, for example, has shown a willingness to remove elements from the list of unbundled elements for less than compelling reasons.<sup>10</sup> For example, the FCC does not require that the ILEC provide unbundled local switching to CLECs whose customers have more than three access lines and are located within the densest markets. The basis for the FCC's equipment exclusions was that a few CLECs had deployed switching equipment in some dense markets.<sup>11</sup> Notably, many of these switches were deployed by non-bankrupt CLECs, and much of the switching capacity was

regulatory requirements, as well as BellSouth's revised procedures. b1

43. See Lawrence, *The Four Horsemen of the Broadband Apocalypse*, *Columbia Law Review*, April 1, 2002. For a more detailed analysis of the FCC's regulatory failures in the last several years, see generally NAT'L TEL. & STRIP. ASSOCIATION v. FCC, 2002 WL 100000 (D.C. 2002).

[illegible]

was not designed for the port-side services that substitute for unbounded LECs to eliminate high-capacity elements from the list of unbounded elements. Generally, high-capacity unbounded loops can be more than half as costly as low-capacity unbounded loops and access services purchased out of LEC's retail tariffs. Thus, the LEC's desire to remove high-capacity elements from the list of unbounded elements is apparent. And, the FCC's review of section 271 applications to permit LECs to vertically reintegrate and to provide intraregion inter-LATA service appears now to be little more than a formality, with approval a near-guarantee.

While excluding particular elements from the list of unbundled elements is objectively justified with their purchase, high prices for elements can be an equally effective deterrent to entry. Important to the purchase of the LEC's elements is that the price of these elements is approximately equal to total element long run incremental costs ("TELRIC"). TELC's strongly oppose TELRIC pricing, and the pricing standard has been challenged in court since its conception in the FCC's *First Report and Order* implementing section 251 of the 1996 Act.<sup>10</sup> Generally, the LECs oppose TELRIC pricing because the prices for elements are alleged to be contrary to (i.e., are "too low" or "below cost") and therefore result in unbalanced allocations.

49. See *McNeil & Smith*, *supra* note 4, at 276-81.
50. TELRIC is a method of determining the cost of telephonic service based on the forward-looking commercial cost of providing service based on a hypothetical network using the most efficient technology available. See 47 C.F.R. §§ 51.503, 51.505 (2000) (implementation of the local competition provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 F.C.C.R. 15499, 1 (Comm. Reg. (P. & T.)) (1996)) (hereinafter *First Report and Order*), *wasted in law* (Rev. 11/14/94, 1994 WL 1274, 134 (F.C.C. 1994) (Feb. 11, 1997)).
51. *First Report and Order*, *supra* note 50, para. 555-607, *aff'd in part and reversed in part*, 106 F.3d 1201, 1202 (D.C. Cir. 1997), *cert. denied*, 529 U.S. 1124 (2000).

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